

FOAMALITE®

PRODUCT GUIDE

WIDE RANGE OF HIGH-QUALITY, LIGHTWEIGHT EXPANDED RIGID PVC SHEET MATERIALS
FOR INDOOR AND OUTDOOR USE.





Signpost – chain store John Lewis & Partners, Kingston-Surrey, UK | Inserts made of FOAMALITE® premium, thickness 3 mm
Design: Whybrow Wayfinding | Manufacturer: Kamset

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Lettering made of FOAMALITE® xpress, thickness 19 mm.
Manufacturer: Igepa Cartacell DOO, Serbia | Customer: PROIZVODI OD KLIRITA d.o.o

FOAMALITE®

FOAMALITE® expanded rigid PVC sheets are ideally suitable for applications in the field of visual communications. Used as a print substrate or as a creative, coloured or co-extruded sheet, FOAMALITE® always delivers what it promises.

FOAMALITE® premium makes the perfect display board for exhibition booths, POS/POP displays or even signage as it is lightweight and also offers excellent dimensional stability.

Thanks to its smooth, white, flat surface, **FOAMALITE® x-press** is the ideal choice for outstanding printing results.

FOAMALITE® color offers a choice of nine different colour tones. The solid, vibrant colours of the expanded rigid sheets offer optimum colour fidelity.

FOAMALITE® re is manufactured using a proportion of approximately 30% recycled material content from post-industrial (PIR) and post-consumer (PCR) waste sources. The unique, smooth natural white surfaces make FOAMALITE® re a favourite for large volume advertising print campaigns where sustainable aspects are the overriding factor.

FOAMALITE® plus is a co-extruded expanded rigid PVC sheet consisting of high-quality white cover layers and a black recycled core. The hard, smooth, bright white surfaces provide extra scratch resistance and rigidity in comparison with common expanded rigid PVC sheets.

Sustainable involvement and environmental protection have always been amongst the essential corporate objectives at 3A Composites. The minimisation of risks for man and environment as well as the reduction of environmental pollution through careful and efficient utilisation of resources is part of the corporate philosophy.

Our production site in Loch Gowna, Ireland is certified to DIN EN ISO 9001, the standard defining internationally recognised requirements for quality management systems. The site has also been audited by EcoVadis, a prestigious, independent platform which evaluates companies all over the world on their performance in the areas of environmental protection, ethics, purchasing employment and human rights.

Read more about our commitment to sustainability starting on page 8.

FOAMALITE® – WIDE RANGE OF HIGH-QUALITY, LIGHTWEIGHT EXPANDED RIGID PVC SHEET MATERIALS FOR INDOOR AND OUTDOOR USE.

FOAMALITE®

WIDE RANGE OF HIGH-QUALITY, LIGHTWEIGHT EXPANDED RIGID PVC SHEET MATERIALS FOR INDOOR AND OUTDOOR USE.

CHARACTERISTICS

- Excellent surface properties
- Suitable for both indoor and outdoor use
- Easy to handle
- Widest range of thicknesses, sheet sizes and colours

APPLICATION

- Displays (POS/POP)
- Signage | Lettering
- Corporate Identity
- Shop design | Shop window decoration
- Interior design | Furniture
- Partitions | Cladding
- Exhibition design and construction
- Model making
- Short term promotional campaigns
- Applications in the health sector
- Construction business

PROCESSING

- Printing (direct digital/screen)
- Lacquering | Painting | Spray painting
- Lamination
- Cutting (cutter/CNC/waterjet)
- Sawing | Cutting out
- Contour milling
- Punching
- Folding (V-groove) | Cold bending
- Hot bending | Hot folding
- Hot forming | Thermoforming
- Cold rolling | Roll bending
- Gluing
- Hot air welding
- Screwing
- Drilling

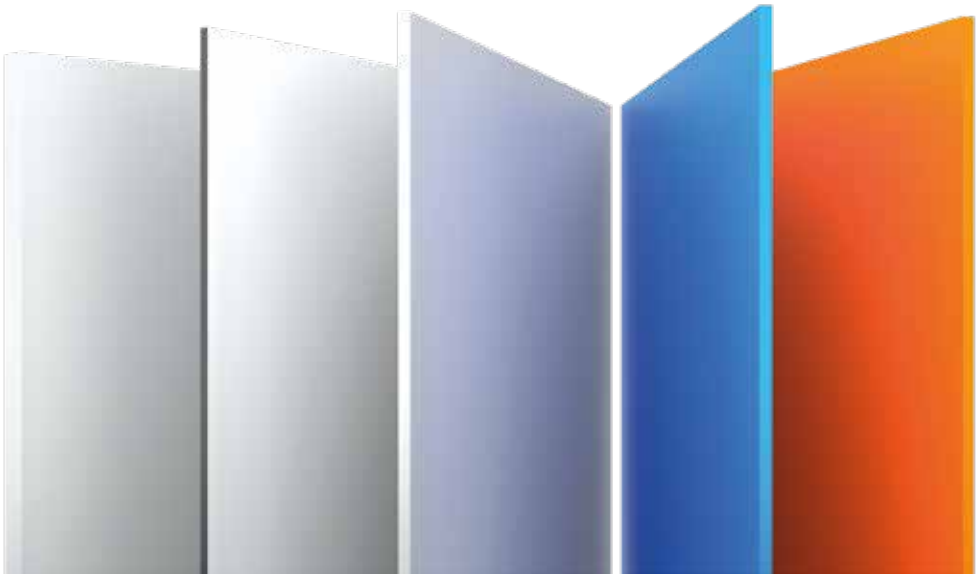
Some product versions may have restricted processing options.
For more details on the processing of FOAMALITE®, please contact our technical team.



PRODUCT	FOAMALITE® premium	FOAMALITE® x-press	FOAMALITE® color	FOAMALITE® re	FOAMALITE® plus
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CHARACTERISTIC	NORM	UNIT	AVERAGE RESULT				
Apparent density (nominal)	ISO 1183	kg/m³	450 – 700	400 – 550	500 – 600	470 – 550	500 – 600
Surface hardness	ISO 7619	Shore D	40	35	37	25	45
Max. service temperature	–	°C	55	55	55	55	55
Coefficient of linear expansion	ISO 11359	mm/(m·K)	0.07	0.07	0.07	0.07	0.07
Water absorption (23°C – 24 h)	ISO 62	%	<1	<1	<1	–	<1
Behaviour in fire	EN 13501		C-s3, d0 (1–10 mm)	C-s3, d0 (2–10 mm)	C-s3, d0 (3–10 mm)	C-s3, d0 (3/5 mm)	–
			B-s2, d0 (1–3 mm)	B-s2, d0 (2–3 mm)	–		–
	NFP 92-501		M1 (1–10 mm)	M1 (2–10 mm)	M1 (3–10 mm)		M1 (5 und 10 mm)

Note: These technical data of our products are typical ones for standard FOAMALITE®.
The actually measured values are subject to production variations.




SUSTAINABILITY

MISSION: TOGETHER. RESPONSIBLE.


We have summarised our commitment to sustainability in our corporate **MISSION: TOGETHER. RESPONSIBLE.** As we also apply and comply with this mission in regard to our products, we have created a classification system for them. The five categories in our **FIVE-DOT-MISSION** system indicate factors with a significant impact on sustainability. Our intention is to offer our partners guidance with their purchasing decision-making and to provide a transparent system. A system which focuses on the use of materials, the carbon footprint, the product life cycle and recycling, a topic of particular relevance for our products. Our FIVE-DOT-MISSION makes an assessment of a product on the basis of the five categories and awards points per category, the product is then assigned to one of the five coloured DOTs. By this means we achieve a transparent, quick valuation logic which we can also use to gauge product innovation and improvement at 3A Composites.

THE FIVE-DOT CATEGORIES ARE:



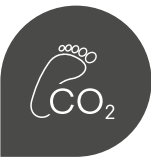
1. BIOBASED CONTENT

Depending on the product, different raw materials are used to manufacture our panels. In this case, we look at the percentage of renewable raw materials used in our products. Our aim is to increase the percentage whenever possible and appropriate.




2. RECYCLED CONTENT

The industry selects raw materials obtained by means of recycling processes which can be used in the manufacture of new products. At the same time, it is essential to ensure requirements such as fire ratings, processing, functionality and appearance are retained. We work continuously to extend our network of recycling companies and to increase the material recycling rates. This category is where we gauge the proportion of high quality recycled raw material in our products' total material input.




3. CO₂ FOOTPRINT

In this category we monitor the kg CO₂ eq/kg per product which is released into the environment during product manufacture (cradle-to-gate) according to EN 15804+A2 (A1-A3). Using the Helix calculation program from Ecochain Technologies B.V as well as the latest available LCA datasets from Ecoinvent or similar databases, we measure the carbon footprint of our products in accordance with ISO 14040 und 14044 for the Life Cycle Analysis (LCA). Information regarding the carbon footprint of a specific product respectively a Life Cycle Assessment (LCA) document is available on request.



4. PRODUCT LIFE CYCLE

The plastic sheets and composite panels we produce are used by our customers for a longer period of time. In contrast to products used in the short term, these longer-term alternatives make an active contribution to saving resources. In this category we show our panels' average service life. Life cycles can range from approximately 1 year to more than 30 years depending on the different materials.



5. RECYCLABILITY

One of the most important aspects of sustainability is contributing to environmental protection by cutting down use of valuable raw materials, conserving resources and avoiding waste. Unlike the second category "recycled content", in this assessment category, we show options for recycling the panels after they have been in use. There are already, for instance, established recycling loops for various paper types and metals. At some production sites, the material can already be returned, so that material for new products can be created. As a company, we came to the conclusion that thermal recycling as a means of energy capture does not seem sustainable enough, so it is not included in our FIVE-DOT classification. Instead, we are actively working with partner companies to establish sustainable and future-oriented recycling solutions for closed-loop recycling management.

As many as 3 points can be achieved in each of the categories presented, totalling a maximum of 15 points. According to the total number of points achieved (1-15), the FIVE-DOT classification is conducted using the following colour gradation.



Transparency is important to us! We will review the product assessment annually to see in which areas the product can be improved. We have set ourselves the goal of achieving 80% of our sales with products which achieve a rating of ≥ 7 points in the FIVE-DOT classification by 2028.

Join us on our sustainable mission!

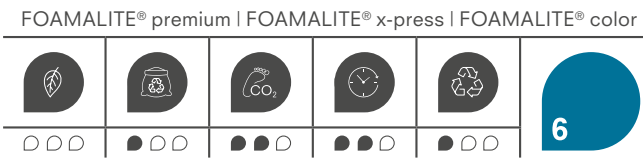


Restaurant Chelsea Garden, UK | Wall cladding made of FOAMALITE® color black

SUSTAINABILITY

FOAMALITE® FIVE-DOT-MISSION

FOAMALITE®, the expanded rigid PVC sheets ideally suitable for applications in the field of visual communication, have been assessed in line with the criteria described above. FOAMALITE® premium, FOAMALITE® x-press and FOAMALITE® color currently achieve in total 6 points in the FIVE-DOT classification, FOAMALITE® plus achieves a total of 7 points and FOAMALITE® re a total of 8 points.



RECYCLED CONTENT
We are already recovering and reusing our own production waste to create new material in the manufacture of FOAMALITE® sheets, and we aim to continue increasing the proportion of recycled content in the future. FOAMALITE® re is manufactured using a proportion of post-industrial and post-consumer waste, which originates from both end-use applications and processing. The current amount of recycled material integrated is approximately 30% due to the limited availability of waste material. In future, waste from printed PVC sheets of one unmixed material category may also be fed back into the cycle. Our range additionally includes FOAMALITE® plus, a panel which features high-quality white cover sheets and has a high recycled content due to its black recycled core.

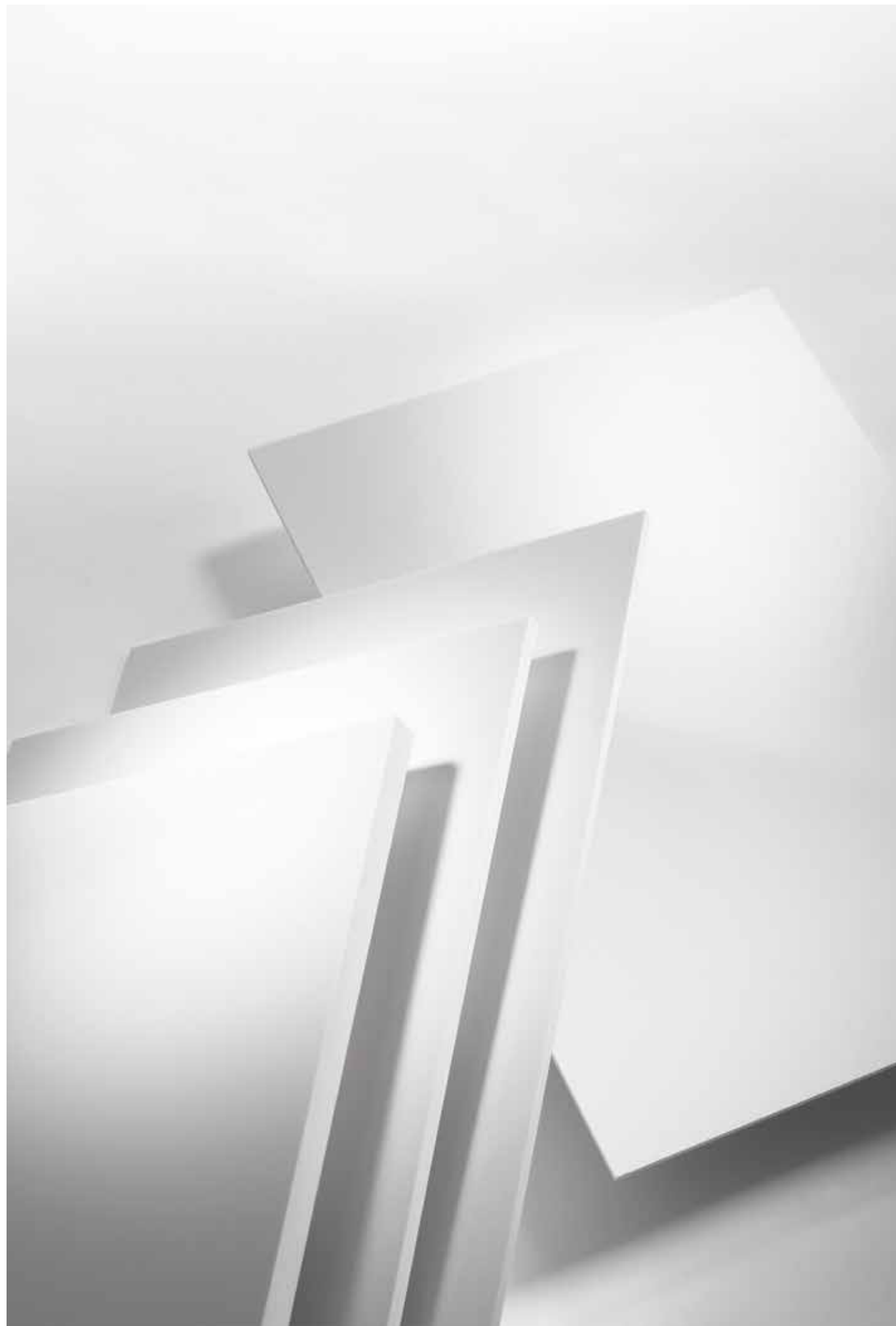
CO₂ FOOTPRINT
FOAMALITE® sheets offer advantages in terms of weight and, at the same time, a high degree of stability due to their unique foamed structure. In addition, as fewer resources are required for production, the amount of CO₂ bound in the material is reduced. By using recycled waste from PVC sheets, the proportion of new raw materials in FOAMALITE® re can also be reduced. This results in the double benefit of lowering CO₂ emissions and also contributing to waste prevention.

PRODUCT LIFE CYCLE
Our FOAMALITE® sheets are made of PVC, a very robust and durable synthetic material which with excellent long-term properties. The material is also known for its “difficult to ignite” rating, its strong resistance to chemicals and outstanding resistance to weathering.

FOAMALITE® premium is used, in particular, for very long-term applications in the visual communication and interior design sectors. FOAMALITE® x-press, FOAMALITE® re and FOAMALITE® plus are high quality plastic sheets for medium-term indoor and outdoor purposes in the printing and signage sectors. FOAMALITE® color offers a wide variety of colours and is a real eye-catcher for medium-term shop and design uses.

RECYCLABILITY
The whole FOAMALITE® product family can be sorted into individual types for recycling and reuse. We are committed to processing our production waste within the company and using it again to manufacture new products. As standard practice, FOAMALITE® re is supplied without protective film, facilitating easy recycling for sheet offcuts. 3A Composites is also working intensively with partner companies to develop even more and better options for collecting and processing our customers' PVC sheet waste.

Draw inspiration from our wide variety of FOAMALITE® sheets shown on the following pages.



FOAMALITE® premium

THE VERSATILE SHEET FOR ALL DISPLAY APPLICATIONS.

FOAMALITE® premium is a superior quality, extremely versatile expanded rigid PVC sheet. The combination of lightweight and extremely good dimensional stability makes it the perfect display board for all structural applications.

Thanks to the fine cell structure and smooth surface finish FOAMALITE® premium is the preferred choice of sign makers, exhibition contractors and professional printers. The improved surface hardness ensures reliable performance and excellent results. The robust surfaces and high durability make it also suitable for interior and exterior applications.

FOAMALITE® premium can be fabricated mechanically as well as thermoformed to an extent for three-dimensional applications.

FOAMALITE® premium offers the widest range of thicknesses (1 – 19 mm) and sheet sizes. The fire behavior is according to: DIN EN 13501-1: C-s3, d0 (1 – 10 mm) as well DIN EN 13501-1: B-s2, d0 (1 – 3 mm).

Application areas:

Signage and display panels | POS/POP displays | Screen printed panels | Digitally printed displays | Exhibition stands | Shop fitting | Wall cladding & partitioning | Interior design

CHARACTERISTICS

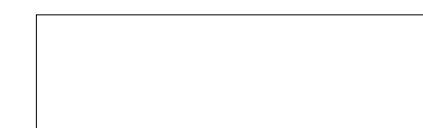
- Universal sheet for all display applications
- High dimensional stability
- Smooth surface finish with high surface hardness
- Easy processing
- Wide range of sheet sizes and thicknesses

PROCESSING

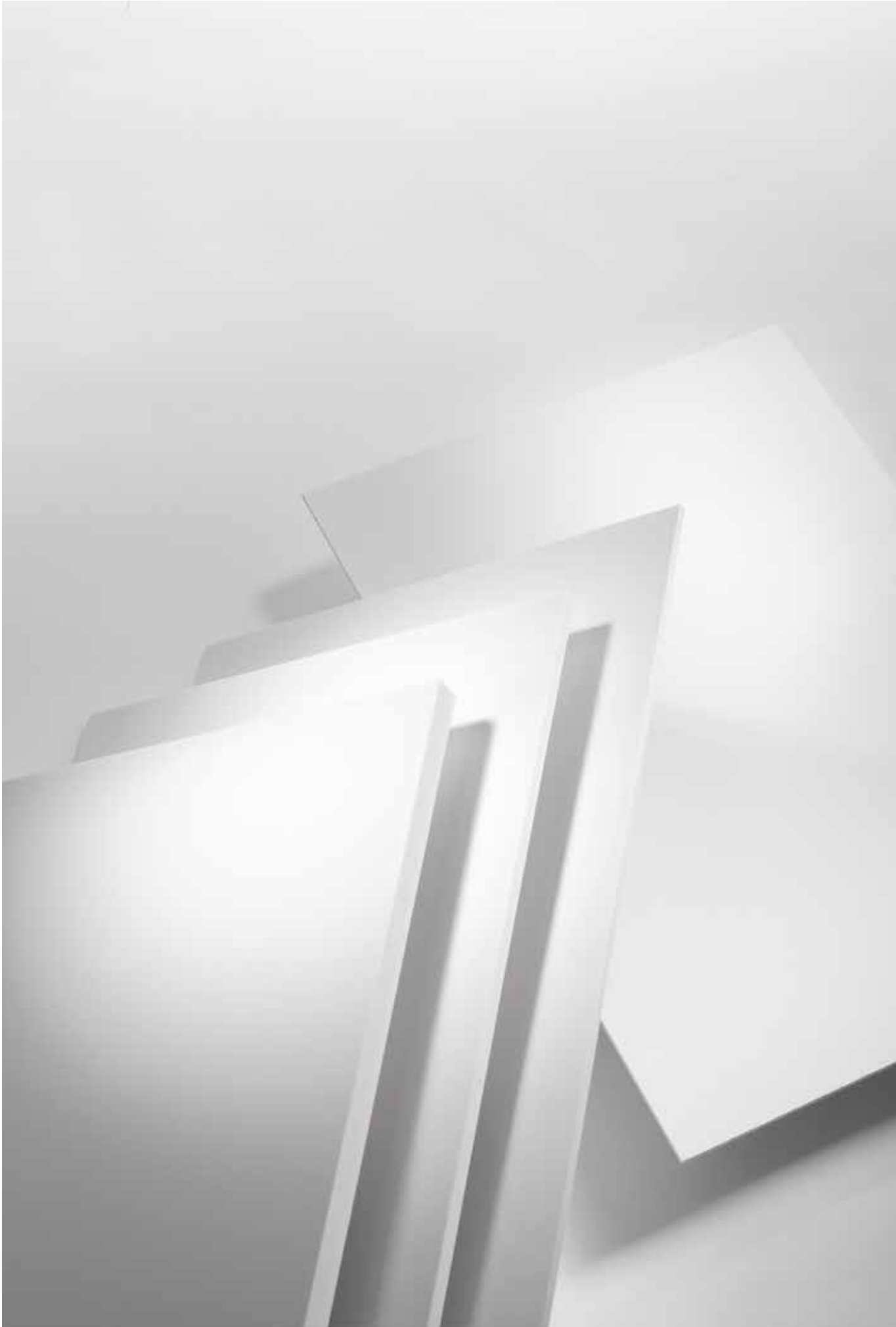
- Printing (direct digital/screen)
- Lacquering | Painting | Spray painting
- Lamination
- Cutting (cutter/CNC/waterjet)
- Sawing | Cutting out
- Contour milling
- Punching
- Folding (V-groove) | Cold bending
- Hot bending | Hot folding
- Hot forming | Thermoforming
- Cold rolling | Roll bending
- Gluing
- Screwing
- Drilling

APPLICATION

- Displays (POS/POP)
- Signage | Lettering
- Corporate Identity
- Shop design | Shop window decoration
- Interior design | Furniture
- Exhibition design and construction
- Model making
- Short term promotional campaigns
- Applications in the health sector
- Construction business



White



FOAMALITE® x-press

THE PREFERRED CHOICE OF PRINTERS.

FOAMALITE® x-press is a light-weight and easy to use expanded rigid PVC sheet. Its white, smooth and uniform surfaces make it the material of choice for outstanding printing results. Thanks to its degree of whiteness, FOAMALITE® x-press ensures a very high fidelity of colours. FOAMALITE® x-press sheets feature blemish-free surfaces with a consistently regular roughness that have been specifically designed for impeccable adhesion of UV curing inks.

FOAMALITE® x-press has a good dimensional stability and is suited for flat applications. FOAMALITE® x-press can be printed on directly without any pre-treatment required. It is supplied as standard with PE-protective film on one side. The protective film can be removed cleanly.

The fire behavior is according to: DIN EN 13501-1: C-s3, d0 (2 – 10 mm) as well as DIN EN 13501-1: B-s2, d0 (2 – 3 mm).

CHARACTERISTICS

- Smooth white surface for excellent printing results
- “Ready to use”
- Optimal ink adhesion and colour fastness
- Good dimensional accuracy of the sheets
- Suitable for flat applications

APPLICATION

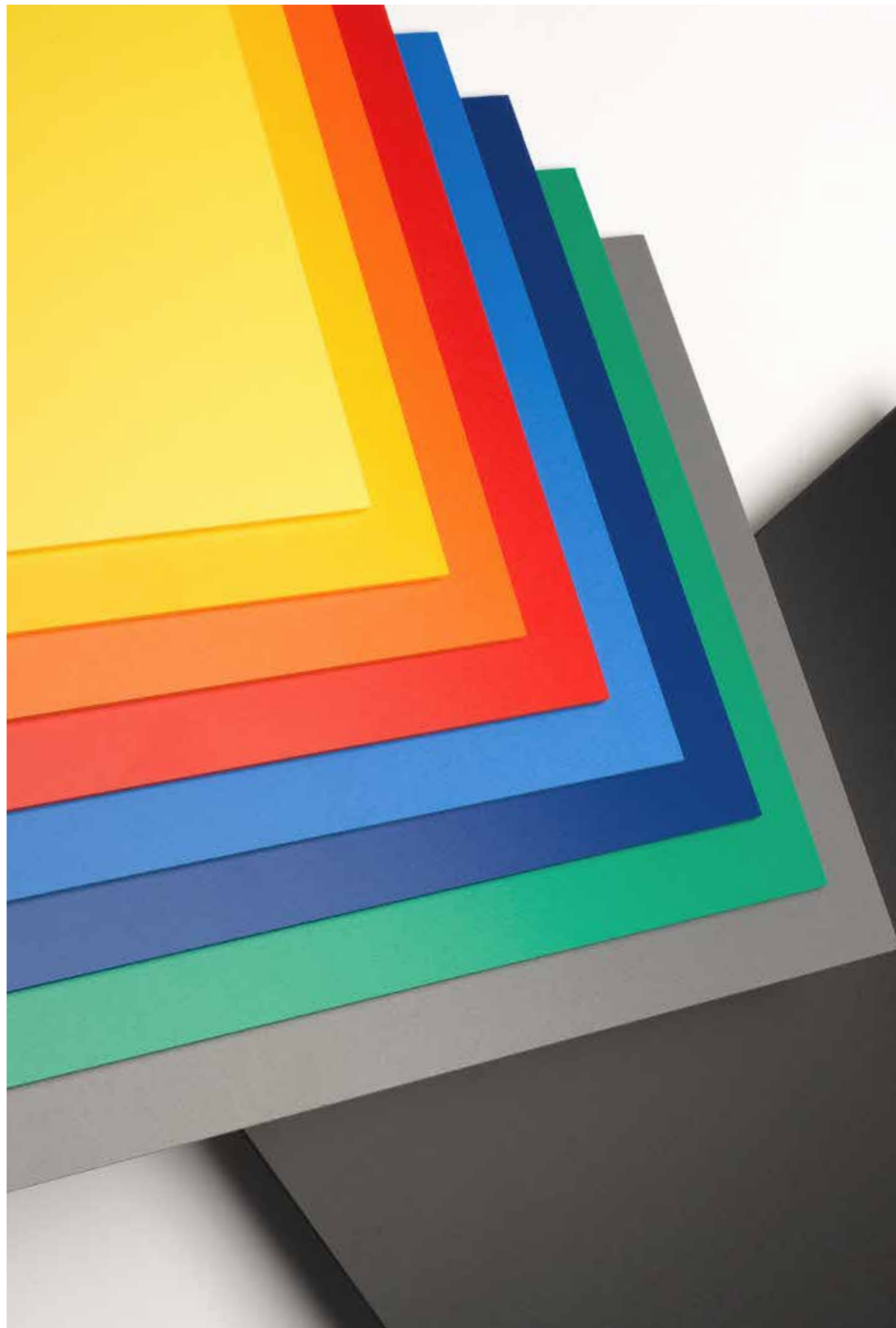
- Signage | Lettering
- Exhibition design and construction
- Model making
- Short term promotional campaigns

PROCESSING

- Printing (direct digital/screen)
- Lacquering | Painting | Spray painting
- Lamination
- Cutting (cutter/CNC/waterjet)
- Sawing | Cutting out
- Contour milling
- Gluing
- Drilling
- Riveting



White



FOAMALITE® color

CREATIVE SHEET IN VIVID COLOURS.

FOAMALITE® color rounds off the FOAMALITE® product family with a selection of nine striking colours. The solid, vibrant colours of the rigid foam sheets offer optimum colour fidelity and a high degree of rigidity. FOAMALITE® color provides designers the best possible colour options for a wide variety of solutions in the field of visual communications. FOAMALITE® color is ideal for enhancing the impact of all advertising with vivid colours. FOAMALITE® color sheets are suitable for both indoor and seasonal outdoor use.

A simple, mechanical processing using standard tools for processing wood and plastics is possible. The fire behavior is according to: DIN EN 13501-1: C-s3, d0 (3 – 10 mm).

CHARACTERISTICS

- Nine vivid colour shades
- Uniform solid coloured material
- Maximum colour consistency throughout the entire sheet

PROCESSING

- Printing (direct digital/screen)
- Lacquering | Painting | Spray painting
- Lamination
- Cutting (cutter/CNC/waterjet)
- Sawing | Cutting out
- Contour milling
- Punching
- Folding (V-groove) | Cold bending
- Hot bending | Hot folding
- Cold rolling | Roll bending
- Gluing
- Drilling

APPLICATION

- Displays (POS/POP)
- Signage | Lettering
- Corporate Identity
- Shop design | Shop window decoration
- Partitions | Cladding
- Exhibition design and construction
- Model making
- Short term promotional campaigns



Light yellow



Red



Green



Dark yellow



Light blue



Grey



Orange



Dark blue



Black



FOAMALITE® re

THE EXPANDED RIGID PVC SHEET WITH RECYCLED CONTENT.

FOAMALITE® re is a lightweight expanded rigid PVC sheet manufactured using a proportion of approximately 30% recycled material content from post-industrial (PIR) and post-consumer (PCR) scraps. The unique, smooth natural white surfaces make FOAMALITE® re a favourite for large volume advertising print campaigns where sustainable aspects are the overriding factor.

Since the recycled material is gained from used or printed expanded rigid PVC sheets and cutting waste, pigments from colour inclusions are visible in the FOAMALITE® re sheets. Slight colour variations may occur between different production batches, depending on which colour is dominant in the recycled material.

FOAMALITE® re stands out with the well-known properties of an expanded rigid PVC sheet, has a good dimensional stability and is tailored for flat indoor and outdoor applications. Thanks to the very smooth surface, the sheets are perfectly suited for printing on both sides. The fire behaviour is according to: DIN EN 13501-1: C-s3, d0 (3mm and 5mm).

Expanded rigid PVC sheets are an excellent choice for keeping a printing substrate in circulation. As standard practice, FOAMALITE® re is supplied without protective film which simplifies the recycling process afterwards.

CHARACTERISTICS

- Made with a proportion of approx. 30% recycled material from PIR/PCR scraps
- High-quality, unique natural white and smooth surfaces
- Pigments visible on the sheet surface, due to colour inclusions from recycled material
- Suitable for flat applications – indoor and outdoor

APPLICATION

- Signage | Lettering
- Exhibition design and construction
- Model making
- Short term promotional campaigns

PROCESSING

- Printing (direct digital/sublimation printing)
- Powder coating
- Lamination
- Cutting (cutter/laser with good optical quality)
- Sawing | Cutting out
- Cold rolling | Roll bending
- Hot air welding
- Screwing



Natural white



FOAMALITE® plus

THE EXPANDED RIGID PVC SHEET WITH A RECYCLED CORE.

FOAMALITE® plus is a co-extruded expanded rigid PVC sheet, consisting of high quality white surface layers and a black recycled core. As a result the entire sheet has a high recycling ratio.

Co-extrusion of core and surface layers ensure FOAMALITE® plus is stronger and more rigid in comparison with common expanded rigid PVC sheets. The hard, smooth, bright white surfaces provide extra scratch resistance and rigidity.

FOAMALITE® plus is ideal for numerous interior and exterior signage and printing applications due to the higher density of the sheet and the flat outer surfaces. In addition, FOAMALITE® plus can also be used for decorative engravings (black graphics in a white area).

CHARACTERISTICS

- Flat, bright white surface
- Stronger and better rigidity in comparison with common expanded rigid PVC sheets
- Recycled core

PROCESSING

- Printing (direct digital/screen)
- Lacquering | Painting | Spray painting
- Lamination
- Cutting (CNC/waterjet)
- Sawing | Cutting out
- Contour milling
- Folding (V-groove) | Cold bending
- Gluing
- Screwing
- Drilling
- Riveting

APPLICATION

- Displays (POS/POP)
- Signage | Lettering
- Corporate Identity
- Shop design | Shop window decoration
- Interior design | Furniture
- Partitions | Cladding
- Exhibition design and construction
- Model making
- Short term promotional campaigns



White cover skins, black recycled core



Interior design for the "Cappuccino" coffee shop chain, Woodlands Mall, Pretoria, South Africa
Partition walls and cladding made of FOAMALITE® color black



RHS CHELSEA

**GARDEN PRODUCT
OF THE YEAR 2020**

F I N A L I S T



